

REMARKS

Upon entry of the foregoing amendments, claims 1-8, 18, 56, and 57 will be presently pending. Claims 1 and 8 have been amended. Specifically, claim 8 has been amended to recite the Markush group as claimed in original claim 8. Accordingly, support for this amendment may be found in original claim 8, as well as in example compound 71, disclosed on page 43, lines 16-18, of the original specification. No new matter has been introduced.

Claim 1 has been amended to recite that R^2 may optionally be $-OC(O)NR^5R^6$, as recited in claim 1 as originally filed. Claim 1 has further been amended to define R^6 as having the same definition as R^5 , independent thereof. Support for these amendments is provided in the original specification and claims. Specifically, original claim 1 recites that R^2 may optionally be $-OC(O)NR^5R^6$. Further support for this amendment may be found on page 12, line 16 of the original specification. Additionally, original claim 8 recites at least six compounds with an R^6 group in which either R^6 or R^5 is H, and the other is either $-CH_2-CH=CH_2$, $-CH_2-CO_2Me$, $-CH_2-CO_2H$, $-CH_2-(CH_2)_2-CH_2Br$, $-CH_2-CH=CH_2$, $-CH-(CH_3)_2$. Support for these amendments is further provided in the original specification by the definitions of R^{19} and R^{20} in formula III (Original Spec., p. 15, lns. 2-4), and R^{27} and R^{28} in formula IV (Original Spec., p. 15, ln. 25, through p. 16, ln. 2). One of ordinary skill in the art would understand that R^6 as disclosed in formula I is the equivalent of R^{20} and R^{28} in formulae III and IV, respectively. Further support is also provided by example compound 71, in which R^5 or R^6 is H, and the other is $-CH-(CH_3)_2$ (Original Spec., p. 43, lns. 16-18). In view of the foregoing disclosures, Applicants respectfully submit that one of ordinary skill in the art would understand that claim 1 as originally recited is to be interpreted such that R^5 and R^6 independently have the same definition.

The present application is a national stage entry of PCT International Application No. PCT/US03/21700, published as PCT International Publication No. WO 2004/005277 A1 ("the '277 publication"). The '277 publication lists as the inventive entity: "Francis P. Kuhajda, Susan M. Medghalchi, Jill M. McFadden, Jagan Thupari, and Craig A. Townsend." With respect to the present invention, Applicants note that Craig A. Townsend was omitted by an editorial oversight from the Declaration of Inventorship filed February 6, 2006. To this end, Applicants will file the appropriate papers under 37 C.F.R. 1.48(a) to affect a correction of inventorship in due course.

Rejections under 35 U.S.C. § 103(a)

Claims 1-8, 18, 56, and 57 have been rejected as allegedly obvious under 35 U.S.C. § 103(a) over Berry et al. (WO 01/49278). The Examiner asserts that Berry et al. teach the synthesis of several substituted thiophenone compounds similar to those of the instantly claimed invention. While the Examiner acknowledges that Berry et al. do not provide for a H at the R¹ position of formula I, as required by claim 1 of the present invention, the Examiner states that it would be obvious to one of ordinary skill in the art to provide such compounds. Applicants respectfully traverse this rejection as least because the compounds of the present invention demonstrate unexpected results with respect to the FAS(IC₅₀).

“A *prima facie* case of obviousness based on structural similarity is rebuttable by proof that the claimed compounds possess unexpectedly advantageous or superior properties.” MPEP § 2144.09(VII). Here, the present invention demonstrates that compounds of formula I in which R¹ is H possess a superior FAS(IC₅₀) to those that comprise alkyl groups at the same position, as taught by Berry et al. Example compounds 32 and 34 disclosed on page 57 of the original specification differ in that R¹ is H in the former, and R¹ is CH₃ in the latter. Example compound 32 demonstrates a FAS(IC₅₀) of 4.5 µg/ml, while example compound 34 demonstrates a FAS(IC₅₀) of 49.2 µg/ml (Original Spec., p. 57). Compound 32 was, therefore, over 10.5 times more active than compound 34. As demonstrated by the foregoing examples, the present invention discloses that the compounds of formula I possess unexpectedly advantageous or superior properties over those disclosed by Berry et al.; namely, in their FAS(IC₅₀) values.

Thus, the compounds of the present invention would not have been obvious to one of ordinary skill in the art. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Objection to Claims for Containing Non-elected Subject Matter

Claims 1-8, 18, 56, and 57 are objected to for allegedly containing non-elected subject matter. The Examiner states that the claims should be amended to exclude non-elected subject matter and to be within the scope of the elected compound. Applicants respectfully submit that the claims as currently pending are in proper form and exclude non-elected subject matter. Specifically, the claims as currently amended fall within elected Group I; namely, compounds of

formula I. "Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141." MPEP § 809.02(a). Accordingly, the Examiner is respectfully requested to withdrawal this ground of objection.

CONCLUSION

In view of the abovementioned amendments and remarks, Applicants respectfully assert that this application is now in condition for allowance. The Examiner is invited to contact the undersigned counsel in order to further the prosecution of this application in any way.

Respectfully submitted,

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